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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER				
USELDING, JOHNE				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/525,160

**Applicant(s)**

ULRICH ET AL.

**Examiner**

JOHN USELDING

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) 17-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-14 and 17-21 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Newly submitted claims 17-21 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: There is no overlap between the polyamide composition of claims 17-21 and the polyamide composition of claims 1-14 insofar as they mandate entirely different quantities of the two principal components.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 17-21 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant claims "wherein the copolymer is in pure form". It is indefinite as to what the applicant intends by "pure form". In specification (paragraph 0033) it appears as though pure is defined as not in a blend with other polar

olefin copolymers. For the purposes of applying prior art the Office is interpreting the phrase "pure form" to be referring polymers that are not in a blend with other polar olefin copolymers.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomoyuki et al. (JP 08-239528).

Regarding claims 1-3: applicant claims a composition comprising 50-99% polyamide and 1-50% ethylene-vinyl acetate polymer. Tomoyuki et al. teach a composition comprising 10-90% polyamide and 10-90% ethylene vinyl acetate polymer (paragraphs 0005 and 0017). There is an overlap of about 40-50% between the ranges which is significant, and therefore anticipated. The ethylene-vinyl acetate copolymers are in pure form since they are not in a blend with other polar olefin copolymers.

Regarding claims 4-5: Tomoyuki et al. teach that the vinyl acetate content is 40-80 mol% (0006).

Regarding claim 11: applicant claims a process for preparing the composition of claim 1 by melt compounding the constituents. The claim states that the nanoscale

millers and elastomers "may" be put in as well but are not necessary. May is a permissive terms which renders the following clause optional. Tomoyuki et al. teach melt molding their composition (paragraph 0023).

Regarding claim 12: applicant claims that the elastomer is incorporated in the form of a masterbatch or a pellet mixture. It is not specified what the elastomer is incorporated into and therefore it is left open to a variety of interpretations. Tomoyuki et al. teach pelletizing their components. The whole composition, including ethylene vinyl acetate copolymer is pelletized and then incorporated into mixer (paragraph 0023).

Regarding claims 13-14: Tomoyuki et al. teach that their composition can be used to make a gas tank (paragraph 0035). They teach that it can be made using blow molding (0023, 0027, 0033).

Claims 1-5, and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Toru et al. (JP 05-140386).

Regarding claims 1-3: applicant claims a composition comprising 50-99% polyamide and 1-50% ethylene-vinyl acetate polymer. Toru et al. teach a composition comprising 5-95% polyamide and 5-95% ethylene vinyl acetate polymer (paragraphs 0005 and 0017). There is an overlap of about 45-55% between the ranges which is significant, and therefore anticipated. The ethylene-vinyl acetate copolymers are in pure form since they are not in a blend with other polar olefin copolymers.

Regarding claims 4-5: Toru et al. teach that the vinyl acetate content is 50-80 mol% (0009).

Regarding claim 11: applicant claims a process for preparing the composition of claim 1 by melt compounding the constituents. The claim states that the nanoscale millers and elastomers "may" be put in as well but are not necessary. May is a permissive terms which renders the following clause optional. Toru et al. teach melt molding their composition (paragraph 0018).

Regarding claim 12: applicant claims that the elastomer is incorporated in the form of a masterbatch or a pellet mixture. Toru et al. teach that the entire composition, including any elastomer present is incorporated in the form of a pellet (paragraph 0018).

Regarding claims 13-14: applicant claims moldings made from their composition. Toru et al. teach that their composition can be used to make various molded articles (paragraph 0011, 0015, 0018, 0022, and 0027).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tachi et al. (5,443,874).

Regarding claims 1-3: Tachi et al. teach a composition comprising polyamide resins and ethylene-vinyl acetate copolymers (column 2, lines 30-40 and column 9, lines 35-45). The ethylene-vinyl acetate copolymers are in pure form since they are not in a blend with other polar olefin copolymers.

Tachi et al. fail to teach the weight ratio of polyamide to ethylene vinyl acetate copolymer used in their composition. They teach that the polyamides are used for improving the bonding properties of the barrier layer (column 5, lines 60-62).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the weight ratio of polyamide to ethylene vinyl acetate copolymer used in the composition of Tachi et al. depending on the desired barrier layer properties. The amount of polyamide would be optimized for desired bonding properties of the barrier layer.

Regarding claims 4-6: Tachi et al. teach that the ethylene-vinyl acetate copolymer is 50-75 mol% vinyl acetate (column 6, lines 3-14). The mol% when converted to weight percent would overlap the 80-90% range of claim 6.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made, since it has been held that choosing the overlapping portion, of the range taught in the prior art and the range claimed by the applicant, has been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549.

Regarding claims 7-9: Tachi et al. teach that the filler talc can be used (column 7, lines 12-13). Talc is a phyllosilicate and a nanoscale filler. It is noted that nanoscale filler is a very broad term. Talc is an oxide hydrate of magnesium, which is a metal.

Regarding claims 11 and 12: They teach a process of preparing the composition by melt molding (melt compounding) it in extruders (column 7, lines 46-50). The claim states that the nanoscale fillers and elastomers "may" be put in as well but are not necessary. May is a permissive term which renders the following clause optional. The only two options are together or separately. Barrier layer pellets, which contain ethylene vinyl acetate are incorporated into high molecular weight polyethylene (column 10, lines 33-45). This satisfies claim 12 where the elastomer is incorporated into the composition in the form of a pellet.

Regarding claims 13 and 14: Tachi et al. teach hollow moldings used for hollow articles such as fuel tanks (column 1, lines 5-18). They teach that their hollow articles are made by coextruding and blow molding (column 9, line 65 to column 10, line 13).

Claims 1-6, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoyuki et al. (JP 08-239528).

Tomoyuki et al. teach what is listed above.

Tomoyuki et al. fail to teach the same ranges as the applicant.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made, since it has been held that choosing the overlapping portion, of the range taught in the prior art and the range claimed by



the applicant, has been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549.

Claims 1-6 and 11-14 are rejected under 35 U.S.C. 102(b) as being unpatentable over Toru et al. (JP 05-140386).

Toru et al. teach what is listed above.

Toru et al. fail to teach the exact same ranges as the applicant.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made, since it has been held that choosing the overlapping portion, of the range taught in the prior art and the range claimed by the applicant, has been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tachi et al. (5,443,874) as applied to claims 1 and 7 above in view of Hayashi et al. (6,398,059), Nagano (4,397,916), Mito et al. (4,370,388), Orikasa et al. (4,962,148),

Tachi et al. teach what is listed above.

Tachi et al. fails to teach the amount of talc filler used.

The claimed range overlaps the amount that is commonly used for talc fillers in similar compositions. For example, see Hayashi et al. (column 23, lines 33-38), Nagano (column 7, lines 9-23), Mito et al. (column 6, lines 11-24), Orikasa et al. (claim 9).

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made, since it has been held that choosing

the overlapping portion, of the range taught in the prior art and the range claimed by the applicant, has been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549.

### ***Response to Arguments***

Applicant's arguments filed 11/18/2008 have been fully considered but they are not persuasive.

The applicant's main argument is that the claims were amended to limit the olefin-vinyl acetate copolymer to a copolymer in pure form. It is argued that this excludes saponified copolymers, which are taught in all of the prior art that is applied. It does not appear that this was the definition of "pure form" that was intended by the original specification. This is the only definition of "pure form" given in paragraph 33:

The olefin-vinyl acetate copolymers are preferably used in pure form, but may also be used in blends with other polar olefin copolymers, for example olefin-vinyl alcohol copolymers, olefin-maleic anhydride copolymers, olefin-acrylate copolymers.

This definition would not lead one of ordinary skill in the art to believe that saponified copolymers were to be excluded.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN USELDING whose telephone number is (571)270-5463. The examiner can normally be reached on Monday-Thursday 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Uselding  
Examiner  
Art Unit 1796

/Marc S. Zimmer/

Primary Examiner, Art Unit 1796\*

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